MONTHLY WEATHER REVIEW

Editor, EDGAR W. WOOLARD

VOL. 67, No. 10
W. B. No. 1279

OCTOBER 1939

CLOSED DEC. 4, 1939
ISSUED January 25, 1940

HAIL AND WINDSTORM OVER SOUTHEASTERN LOUISIANA, FEBRUARY 26, 1939

By G. L. CANADAY
[Weather Bureau, New Orleans, La., March 1939]

A hail and wind storm originated over north-central Lafourche Parish, La., at 10:45 p. m. on February 26, 1939; light hail was first reported at Lafourche and Lockport at that time.

The storm moved east-northeastward, with an average speed of about 50 miles per hour, traversing a path 65 miles long in 1 hour and 15 minutes. The path of falling hail varied in width from about 16 miles at its beginning to about 27 miles at its widest part over New Orleans and adjacent territory. The storm started from just east of Thibodaux about 10:45 p. m. and moved to New Orleans by 11:30 to 11:40 p. m.; it reached Violet at 12 midnight,

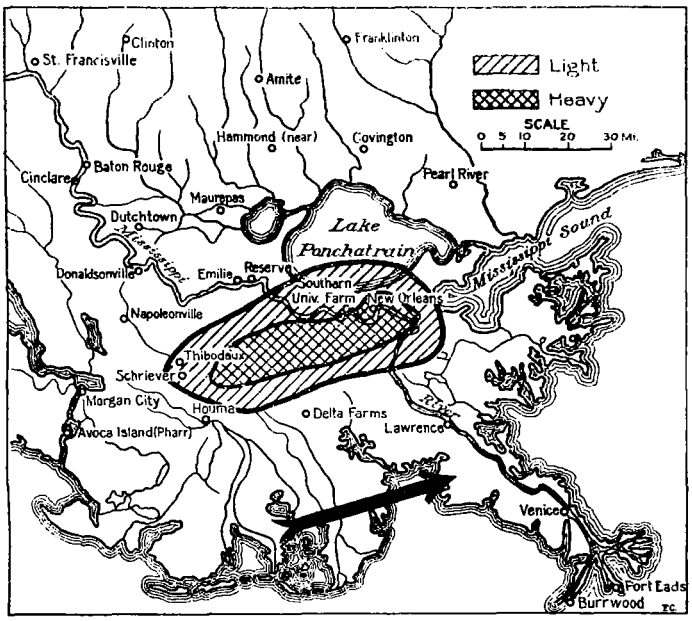

FIGURE 1.—Approximate path and intensity of hailstorm of February 26–27, 1939, at New Orleans, La.

after which it was lost to record over Lake Borgne. Hail was recorded at the Weather Bureau, New Orleans, from 11:30 to 11:40 p. m., during which time it was principally heavy. Rain began at 11:25 p. m., continued during the hail, and ended 10 minutes past midnight. The total measurement of rain and melted hail was 0.68 inch for the 45-minute period.

Heavy hail occurred along a fairly uniform strip about 10 miles wide and 50 miles long in the middle of the storm path.

The approximate path and the intensity of the hailstorm are indicated in figure 1.

Hailstones varied in size from one-fourth to three-fourths inch in diameter in New Orleans; stones nearly 3 inches in diameter were reported from the vicinity of Arabi, St. Bernard Parish, and Westwego, Jefferson Parish, and some as small as one-eighth inch in a few areas.

The hail reached an accumulated depth of 1 inch at the Weather Bureau in New Orleans and from 1 to 2 inches elsewhere in the city, and piled up as deep as 1 foot in corners and along edges of buildings. Hail was observed to remain on roofs and on the ground in some sections until 4 p. m. of the 27th even though the temperature at the

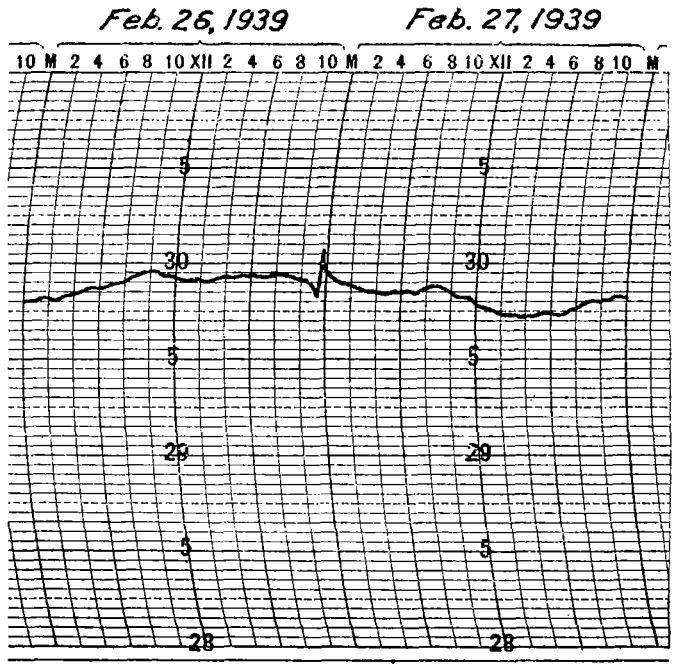

FIGURE 2.—Barogram, New Orleans, La., February 26–27, 1939.

Weather Bureau, New Orleans, rose from 48° at midnight to 74° in the afternoon.

A copy of the Weather Bureau, New Orleans, barograph trace is shown in figure 2. The barometric pressure fell slightly just prior to the storm, then rose rapidly about 0.25 inch. It then dropped sharply for a few minutes and afterward more slowly until it returned to normal near 1 a. m.

In figure 3 the temperature changes accompanying the storm are indicated. There was a slow rise from 54° at 10 p. m. to 57° at 11:30 p. m. When the hail began at 11:30 p. m., there was a decided drop from 57° to 48° by midnight.

FIGURE 4.—Hailstones at Prytania and Harmony Streets, New Orleans, February 26–27, 1939. (Photo by New Orleans States.)

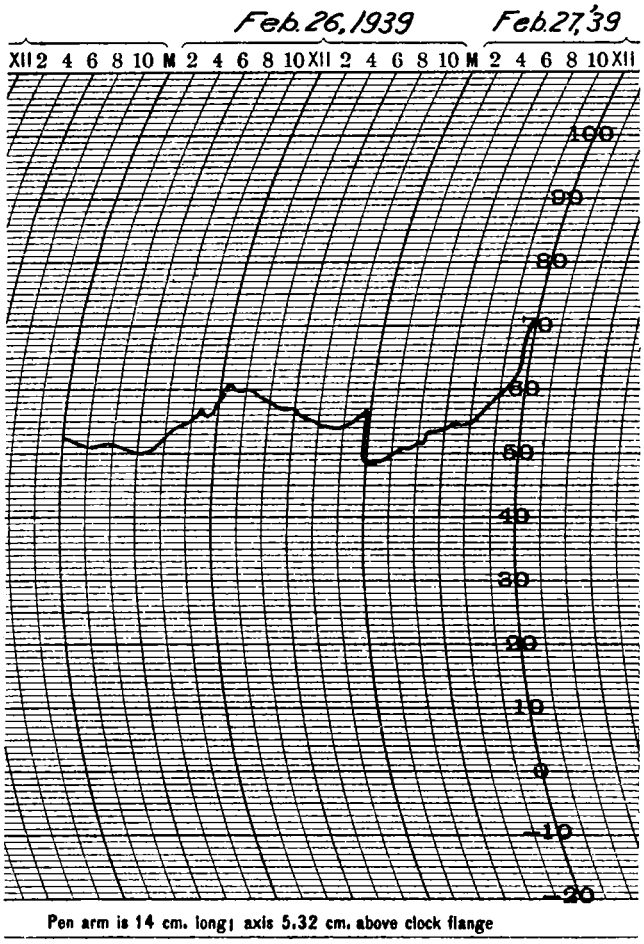

FIGURE 3.—Thermogram, New Orleans, La., February 26-27, 1939.

Maximum wind velocities varied considerably over the path of the storm and at most places were quite gusty, lasting only a very few minutes generally, and wind directions, for the most part, made very rapid shifts. However, little tornadic tendency was noted. The wind direction at the Weather Bureau, New Orleans, was easterly at the beginning of the hail, 11:30 p. m., but shifted to west and southwest at 11:39 and remained from that quadrant for 5 minutes, then shifted to easterly for 3 minutes, again to westerly for 4 minutes and at 11:52 returned to easterly.

The maximum 5-minute velocity recorded at New Orleans was 25 miles per hour from the southwest at 11:40 p. m., during which time an extreme velocity of 32 miles per hour occurred. Much higher extreme and maximum 5-minute velocities evidently occurred in some other sections of the storm area. A 90-mile gust (uncorrected) was recorded by the anemometer atop the Huey P. Long bridge across the Mississippi River, a short distance upstream from New Orleans, at an elevation of 265 feet above sea level.

Damage in the storm area, outside of the city of New Orleans, from both hail and wind, is estimated to be $50,000, consisting chiefly in loss of crops, buildings, and trees. In and around New Orleans it is estimated that the damage was at least $150,000; many buildings, trees, plate-glass windows, and signboards were either partially or totally destroyed. A 210-foot steel radio tower which was designed to withstand a 70- to 75-mile gale, was blown to the ground. Most damage was done by hail to flowers, shrubs, tender trees, truck crops, automobile tops, and house roofs. Some damage by rain and hail was also done to contents of buildings from which roofs had been totally or pratially removed by the wind.

The photograph, shown as figure 4, was taken at Prytania and Harmony Streets in New Orleans, near the end of the storm. (Photograph by the New Orleans States.)

THE MACGREGOR ARCTIC EXPEDITION TO ETAH, GREENLAND, JULY 1, 1937 TO OCTOBER 4, 1938

By CLIFFORD J. MACGREGOR

[Weather Bureau, Horseheads, N. Y., March 1939]

Plans were made during the Second International Polar Year to have the United States reoccupy Fort Conger, Ellesmere Island, Canada, for the purpose of meteorological, magnetic, and auroral observations. The United States was unable, however, to carry out the full program outlined by the Commission, and therefore no station was in operation in Ellesmereland or North Greenland, leaving a large blank area on the charts. During the writer's stay at Point Barrow, Alaska, for the Polar Year, he decided to reoccupy Fort Conger as soon as the necessary arrangements could be made; and in the fall of 1936 the organization of this trip became possible.

In the spring of 1937 a three-masted schooner, well constructed for use in the polar ice, was purchased in Newfoundland, and brought to Port Newark, N. J., where new motors were installed, and the ship reconditioned for the expedition, with new lines, rigging, sails, cabins, and internal bracing.

Leave of absence was obtained from the United States Weather Bureau for the purpose of leading the expedition. Personnel was secured for the special work to be done, such as magnetic and airplane surveying, making a total of 10 members.

The expedition had four main objectives:

1. To collect weather data from the Polar Basin, with especial reference to the effects of conditions in the polar regions to the formation of polar air masses and the weather of lower latitudes.

2. To make a magnetic survey for the Carnegie Institution of Washington.

3. To photograph the aurora borealis and study its effects upon radio transmission.

4. To explore the Polar Basin northwest of Ellesmereland, Canada, in order to clear up the question of Crocker Land which Peary placed on the maps more than 30 years ago and which we found to be nonexistent. At the same time a study was made of the customs and mode of life of the Polar Eskimo, and of the wildlife.

The United States Weather Bureau, the Julian P. Friez Co., and the Weston Electrical Co. supplied the necessary meteorological instruments, and the American Oxygen Co. of Harrison, N. J., provided the hydrogen for inflating the balloons. The Monroe Calculator Co. loaned an adding machine; and most of the records were compiled in the field. Electric current was supplied by Exide batteries, kept charged by small windchargers.